



## ABSTRACT

A photocatalyst is made by first mixing an alcohol, a titanium alkoxide and a binder in the presence of a catalytic acid to form a mixture. The catalytic acid may be concentrated hydrochloric acid or concentrated nitric acid. The binder may be selected from polyethylene 200, polyethylene 400, polyethylene 600 or a mixture of tetraethoxysilane and water. This mixture is then heated at about 100°C for at least two hours, and then calcinated at about 450°C for at least two hours. The resulting catalyst is found to have improved efficacy at high humidity level.